

### Abstract

The invention relates to a method for actuating an accumulator catalyst for nitrogen dioxide on an internal combustion engine for a vehicle, in particular a car. According to the inventive method, a first range of operation is carried out in a poor operating mode when the engine is supplied with a lean mixture and nitrogen oxide contained in the exhaust gas is stored in the accumulator catalyst for nitrogen dioxide. In order to remove nitrogen dioxide from said accumulator catalyst for nitrogen dioxide at a determined switching moment when a given switching condition is achieved, an engine control unit switches the poor-operating mode into a rich operating mode. The aim of said invention is to determine an optimal moment for switching from the poor operating mode into the rich operating mode in order to remove nitrogen oxide from the accumulator catalyst. For this purpose, a removal limit (3) is setup as a function of a gross value of the nitrogen dioxide emission (1) simulated in the exhaust gas flow and as a function of a value of the nitrogen dioxide emission detected at the end of the exhaust (4,5) in such a way that the unloading of the catalyst is initiated when the integral emission values (1,2,4,5) brought together show that the discharge limit (43) is achieved or exceeded.